

PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031=

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE work Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substi	tute for form 1449A/F	то	·	Complete if Known		
			Application Number	10/803,080		
INF	ORMATIO	N DISCLOSURE	Filing Date	March 18, 2004		
STA	ATEMENT	BY APPLICANT	First Named Inventor	Richard L. Cunningham		
			Art Unit	2673		
	(use as many s	heets as necessary)	Examiner Name	Unassigned		
Sheet	1	of 7	Attorney Docket Number	IMMR-114/00US		

		Document Number			
xaminer	Cite No.1	Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
/YS/		6,422,941	7/23/2002	Thomer et al.	
		6,160,489	12/12/2000	Релту et al.	
		6,111,577	8/29/2000	Zilles et al.	
		5,785,630	7/28/1998	Bobick et al.	
		5,766,016	6/16/1998	Sinclair	
		5,690,582	11/25/1997	Ulrich et al.	
		5,575,761	11/19/1996	Hajianpour	
		5,547,382	8/20/1996	Yamasaki	
		5,466,213	11/14/1995	Hogan	
		5,437,607	8/1/1995	Taylor	
		5,436,622	7/25/1995	Gutman et al.	
		5,334,027	8/2/1994	Wherlock	
		5,309,140	5/3/1994	Everett	
		5,299,810	4/5/1994	Pierce	
		5,283,970	2/8/1994	Aigner	
		5,275,174	1/4/1994	Cook	
		5,271,290	12/21/1993	Fischer	
		5,240,417	8/31/1993	Smithson et al.	
		5,212,473	5/18/1993	Louis	
		5,186,695	2/16/1993	Mangseth et al.	
		5,175,459	12/29/1992	Danial et al.	
		5,165,897	11/24/1992	Johnson	
		5,078,152	1/7/1992	Bond	
		5,038,089	8/6/1991	Szakaly	
		5,035,242	7/30/1991	Franklin	
		5,022,407	6/11/1991	Horch et al.	·
		5,022,384	6/11/1991	Freels	
		5,019,761	5/28/1991	Kraft	
		4,934,694	6/19/1990	McIntosh	
		4,930,770	6/5/1990	Baker	
_		4,891,764	1/2/1990	McIntosh	
		4,885,565	12/5/1989	Embach	
		4,794,392	12/27/1988	Selinko	
\mathbf{W}_{-}		4,713,007	12/15/1987	Alban	
▼		4,708,656	11/24/1987	De Vries et al.	

|--|

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231

¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 If possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031=

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid CMB control number.

Substitute for form 1449A/PTO		Complete if Known
	Application Number	10/803,080
INFORMATION DISCLOSURE	Filing Date	March 18, 2004
STATEMENT BY APPLICANT	First Named Inventor	Richard L. Cunningham
	Art Unit	2673
(use as many sheets as necessary)	Examiner Name	Unassigned
Sheet 2 of 7	Attorney Docket Number	IMMR-114/00US

U.S. PATENT DOCUMENTS					
		Document Number			
xaminer YS/	Cite No.1	Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevan Figures Appear
1101		4,599,070	7/8/1986	Hladky et al.	
1		4,581,491	4/8/1986	Boothroyd	
		4,513,235	4/23/1985	Acklam et al.	
		4,484,191	11/20/1984	Vavra	
		4,464,117	8/7/1984	Foerst	
		4,333,070	6/1/1982	Barnes	
		4,262,549	4/21/1981	Schwellenbach	
		4,236,325	10/2/1980	Hall et al.	
		4,160,508	7/10/1979	Şalsbury	
		4,127,752	11/28/1978	Lowthorp	
		3,911,416	10/7/1995	Feder	
		3,903,614	9/9/1975	Diamond et al	
		3,902,687	6/25/1973	Hightower	
		3,623,064	11/23/1970	Kagan	
		3,517,446	6/30/1970	Corlyon et al.	
		3,497,668	2/24/1970	Hirsch	
		3,220,121	11/30/1965	Cutler	
\sqrt{Z}		3,157,853	11/17/1964	Hirsch	
V		2,972,140	2/14/1961	Hirsch	

Examiner Cite No.1		Foreign Patent Document Country Code ³ Number ⁴ Kind Code ⁸ (If known)		Publication Date	Name of Patentee or Applicant of Cited	Pages, Columns, Lines, Where Relevant Passages or Relevant	
				Kind Code ⁶ (if known)	MM-DD-YYYY	Document	Figures Appear
/YS/		EP	0349086		1/3/1990	Stork Kwant B.V.	
i	1	JP	H2-185278		7/19/1990	Taito Corporation	
		JP	H4-8381		1/13/1992	Epoch Co. and Key- Planning Co.	
\sqrt{I}		JP	H7-24147		1/27/1995	Sega Corporation	
V		JP	H5-192449		8/3/1993	Taito Corporation	

Examiner Signature	/Yong Sim/	Date Considered	01/21/2008
-----------------------	------------	--------------------	------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Mind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁶ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231

PTO/SB/08A (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO	Complete if Known		
	Application Number	10/803,080	
INFORMATION DISCLOSURE	Filing Date	March 18, 2004	
STATEMENT BY APPLICANT	First Named Inventor	Richard L. Cunningham	
	Art Unit	2673	
(use as many sheets as necessary)	Examiner Name	Unassigned	
Sheet 3 of 7	Attorney Docket Number	IMMR-114/00US	

		OTHER PRIOR ART NON PATENT LITER	ATURE DOCUMENTS			
Examiner Initials *	the transfer of the transfer o					
NS/		BAIGRIE, "Electric Control Loading - A Low Cost, High Performa Interservice/Industry Training Systems Conference, pp. 247-254.				
		IWATA, "Pen-based Haptic Virtual Environment," 0-7803-1363-1	/93 IEEE, pp 287-292, 1993.			
		RUSSO, "The Design and Implementation of a Three Degree of Archives, pp. 1-131, May 1990, archived 08/14/1990.	Freedom Force Output Joystick,* MIT Libraries			
	-	BROOKS et al., "Hand Controllers for Teleoperation - A State-of- Publication 85-11; NASA-CR-175890; N85-28559, pp. 1-84, 03/1				
		JONES et al., "A perceptual analysis of stiffness," ISSN 0014-48 Experimental Brain Research, Vol. 79, No. 1, pp. 150-156, 1990.				
		BURDEA et al., "Distributed Virtual Force Feedback, Lecture No Environments and its Application to Robotic Teleoperation," 199: Automation, pp. 25-44, 05/02/1993.				
		SNOW et al., "Model-X Force-Reflecting-Hand-Controller," NT C with 45 pages of attachments, 06/15/1989.	ontrol No. NPO-17851; JPL Case No. 7348, pp. 1-4,			
	•	OUH-YOUNG, "Force Display in Molecular Docking," Doctoral D Hill, UMI Order No. 9034744, pp. 1-369, 1990.	issertation, University of North Carolina at Chapel			
		TADROS, "Control System Design for a Three Degree of Freedo Pair Actuators, <i>MIT Archive</i> , pp. 1-88, February 1990, archived 8				
		CALDWELL et al., "Enhanced Tactile Feedback (Tele-Taction) U 4729/93, pp. 955-960, 1993.	Ising a Multi-Functional Sensory System," 1050-			
	•	ADELSTEIN, "Design and Implementation of a Force Reflecting Vol. 42, Advances in Robotics, pp. 1-12, 1992.	Manipulandum for Manual Control research," DSC-			
		GOTOW et al., "Controlled Impedance Test Apparatus for Studyl WA11-11:00, pp. 332-337.	ing Human Interpretation of Kinesthetic Feedback,"			
		STANLEY et al., "Computer Simulation of Interacting Dynamic M Parallel Processors," DSC-Vol. 42, Advances in Robolics, pp. 55				
		RUSSO, "Controlling Dissipative Magnetic Particle Brakes in For Robotics, pp. 63-70, ASME 1992.	ce Reflective Devices," DSC-Vol. 42, Advances in			
\bigvee		KONTARINIS et al., "Display of High-Frequency Tactile Informati and Space Telerobotics, Won S. Kim, Editor, Proc. SPIE Vol. 208				
xaminer Signature		/Yong Sim/ Date Conside	red 01/21/2008			

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		Complete if Known
	Application Number	10/803,080
INFORMATION DISCLOSURE	Filing Date	March 18, 2004
STATEMENT BY APPLICANT	First Named Inventor	Richard L. Cunningham
	Art Unit	2673
(use as many sheets as necessary)	Examiner Name	Unassigned
Sheet 4 of 7	Attorney Docket Number	IMMR-114/00US

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
/YS/ 		PATRICK et al., "Design and Testing of A Non-reactive, Fingertip, Tactile Display for Interaction with Remote Environments," Cooperative Intelligent Robotics in Space, Rui J. deFigueiredo et al., Editor, Proc. SPIE Vol. 1387, pp. 215-222, 1990.	
		ADELSTEIN, "A Virtual Environment System For The Study of Human Arm Tremor," <i>Ph.D. Dissertation</i> , Dept. of Mechanical Engineering, MIT, June 1989, archived 3/13/90.	
		BEJCZY, "Sensors, Controls, and Man-Machine Interface for Advanced Teleoperation," Science, Vol. 208, No. 4450, pp. 1327-1335, 1980.	
		BEJCZY et al., "Generalization of Bilateral Force-Reflecting Control of Manipulators," Proceedings Of Fourth CISM- IFTOMM, Sep. 8-12, 1981.	
•		MCAFFEE, "Teleoperator Subsystem/Telerobot Demonsdtrator: Force Reflecting Hand Controller Equipment Manual," JPL D-5172, January 1988.	
		MINSKY, "Computational Haptics: The Sandpaper System for Synthesizing Texture for a Force-Feedback Display," Ph.D. Dissertation, MIT, June 1995, archived 7/6/95.	
		JACOBSEN et al., "High Performance, Dextrous Telerobotic Manipulator With Force Reflection," Intervention/ROV '91 Conference & Exposition, Hollywood, Florida, May 21-23, 1991.	
		SHIMOGA, "Finger Force and Touch Feedback Issues in Dexterous Telemanipulation," <i>Proceedings of Fourth Annual Conference on Intelligent Robotic Systems for Space Exploration</i> , Rensselaer Polytechnic Institute, Sep. 30 - Oct. 1, 1992.	
		IBM Technical Disclosure Bulletin, "Mouse Ball-Actuating Device With Force and Tactile Feedback," Vol. 32, No. 9B, February 1990.	
		TERRY et al., "Tactile Feedback In A Computer Mouse," Proceedings of Fouteenth Annual Northeast Bioengineering Conference, University of New Hampshire, March 10-11, 1988.	
		HOWE, "A Force-Reflecting Teleoperated Hand System for the Study of Tactile Sensing in Precision Manipulation," Proceedings of the 1992 IEEE International Conference on Robotics and Automation, Nice, France, May 1992.	
		EBERHARDT et al., "OMAR - A Haptic display for speech perception by deaf and deaf-blind individuals," IEEE Virtual Reality Annual International Symposium, Seattle, WA, Sep. 18-22, 1993.	
		RABINOWITZ et al., "Multidimensional tactile displays: Identification of vibratory intensity, frequency, and contactor area," Journal of The Acoustical Society of America, Vol. 82, No. 4, October 1987.	
\forall		BEJCZY et al., "Kinesthetic Coupling Between Operator and Remote Manipulator," International Computer Technology Conference, The American Society of Mechanical Engineers, San Francisco, CA, August 12-15, 1980.	

Examiner Signature	/Yong Sim/	Date Considered	01/21/2008

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

PTO/SB/08A (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO	Complete if Known		
	Application Number	10/803,080	
INFORMATION DISCLOSURE	Filing Date	March 18, 2004	
STATEMENT BY APPLICANT	First Named Inventor	Richard L. Cunningham	
	Art Unit	2673	
(use as many sheets as necessary)	Examiner Name	Unassigned	
Sheet 5 of 7	Attorney Docket Number	IMMR-114/00US	

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Cite No.1		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
/YS/		BEJCZY et al., "A Laboratory Breadboard System For Dual-Arm Teleoperation," SOAR '89 Workshop, JSC, Houston, TX, July 25-27, 1989.			
		OUH-YOUNG, "A Low-Cost Force Feedback Joystick and Its Use in PC Video Games," IEEE Transactions on Consumer Electronics, Vol. 41, No. 3, August 1995.			
		MARCUS, "Touch Feedback In Surgery," Proceedings of Virtual Reality and Medicine The Cutting Edge, Sept. 8-11, 1994.			
		BEJCZY, et al., "Universal Computer Control System (UCCS) For Space Telerobots," CH2413-3/87/0000/0318501.00 1987 IEEE, 1987.			
	PATRICK, "Design, Construction, and Testing of a Fingertip Tactile Display for Interaction with Virtual and Environments," Master of Science Thesis, MIT, Aug. 1990, archived Nov. 8, 1990.				
		CALDER, "Design of A Force-Feedback Touch-Introducing Actuator For Teleoperator Robot Control," Bachelor of Science Thesis, MIT, May 1983, archived June 23, 1983.			
		WIKER, "Teletouch Display Development: Phase 1 Report," <i>Technical Report 1230</i> , Naval Ocean Systems Center, San Diego, July 1988.			
		BLISS, "Optical-to-Tactile Image Conversion for the Blind," <i>IEEE Transactions on Man-Machine Systems</i> , Vol. MMS-11, No. 1, March 1970.			
		JOHNSON, "Shape-Memory Alloy Tactile Feedback Actuator," Armstrong Aerospace Medical Research Laboratory, AAMRL-TR-90-039, August, 1990.			
		KONTARINIS et al., "Tactile Display of Vibratory Information in Teleoperation and Virtual Environments," PRESENCE, 4(4):387-402, Harvard Univ., 1995.			
		AUKSTAKALNIS et al., "Sillcon Mirage: The Art and Science of Virtual Reality," ISBN 0-938151-82-7, pp. 129-180, 1992.			
		EBERHARDT et al., "Inducing Dynamic Haptic Perception by The Hand: System Description and Some Results," DSC-Vol. 55-1, Dynamic Systems and Control: Volume 1, ASME 1994.			
		GOBEL et al., "Tactile Feedback Applied to Computer Mice," International Journal of Human-Computer Interaction, Vol. 7, No. 1, pp. 1-24, 1995.			
		PIMENTEL et al., "Virtual Reality: through the new looking glass," 2 nd Edition; McGraw-Hill, ISBN 0-07-050167-X, pp. 41-202, 1994.			
$\overline{\mathbf{V}}$		*Cyberman Technical Specification,* Logitech Cyberman SWIFT Supplement to Logitech Mouse Technical Reference and Programming Guide, 4/5/1994.			

Examiner Signature	/Yong Sim/	Date Considered	01/21/2008

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		Complete if Known
	Application Number	10/803,080
INFORMATION DISCLOSURE	Filing Date	March 18, 2004
STATEMENT BY APPLICANT	First Named Inventor	Richard L. Cunningham
	Art Unit	2673
(use as many sheets as necessary)	Examiner Name	Unassigned
Sheet 6 of 7	Attorney Docket Number	IMMR-114/00US

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner Cite		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
<i>I</i> YS/		OUHYOUNG et al., "The Development of A Low-Cost Force Feedback Joystick and Its Use In the Virtual Reality Environment," Proceedings of the Third Pacific Conference on Computer Graphics and Applications, Pacific Graphics '95, Seoul, Korea, 21-24 August 1995.	
		KACZMAREK et al., "Tactile Displays," Virtual Environment Technologies, Chap. 9, pp. 349-414.	
		LAKE, "Cyberman from Logitech," at http://www.lbiblio.org/GameBytes/issue21/greviews/cyberman.html, 1994.	
		"Component Maintenance Manual With Illustrated Parts List, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 28 January 2002 (3 pages).	
		"Technical Manual Overhaul Instructions With Parts Breakdown, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 15 July 1980 (23 pages).	
		SCANNELL, "Taking a Joystick Ride," Computer Currents, Boston Edition, Vol. 9, No. 11, November 1994	
		YAMAKITA et al., "Tele-Virtual Reality of Dynamic Mechanical Model," Proceedings of the 1992 IEEE/RSJ International Conference on Intelligent Robots and Systems, Raleigh, NC, July 7-10, 1992	
		NOLL, "Man-Machine Tactile," SID Journal, July/August 1972 Issue.	
		ROSENBERG, "Virtual Fixtures: Perceptual Overlays Enhance Operator Performance In Telepresence Tasks," Ph.D. Dissertation, Stanford University, June 1994.	
		Sawbones Worldwide website page, http://www.sawbones.com, dated 10/17/2003	
		"Biomechanical Test Materials", Sawbones Worldwide, website: http://www.sawbones.com/products/bio/, dated October 17, 2003	
		"SEXTANT™ Percutaneous Rod Insertion – Overvivew", Article 1573, Spineuniverse.com, website: http://www.spineuniverse.com/displayarticle.php/article 1573.html , dated January 21, 2004	
		SEXTANT™ Percutaneous Rod Insertion – Overview, Article 1574, Spineuniverse.com, website: http://www.spineuniverse.com/displayarticle.php/article1574.html, dated January 21, 2004	
		"SEXTANT™ Percutaneous Rod Insertion – Pedicle Screws", Article 1575, Spineuniverse.com, website: http://www.spineuniverse.com/displayarticle.php/article1575.html, dated January 21, 2004	
$\overline{\Psi}$		*CD HORIZON® SEXTANT™ Rod Insertion Set*, Medtronic Sofamor Danek, website: http://www.medtronisofamordanek.com/patlent-minimal-sextant.html, dated January 21, 2004	

			
Examiner Signature	/Yong Sim/	Date Considered	01/21/2008

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid CMB control number.

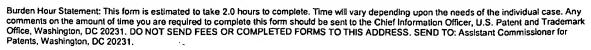
Substitute for form 1449A/PTO	Complete if Known		
	Application Number	10/803,080	
INFORMATION DISCLOSURE	Filing Date	March 18, 2004	
STATEMENT BY APPLICANT	First Named Inventor	Richard L. Cunningham	
	Art Unit	2673	
(use as many sheets as necessary)	Examiner Name	Unassigned	
Sheet 7 of 7	Attorney Docket Number	IMMR-114/00US	

OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS						
Examiner Cite item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.						
/YS/		"SEXTANT™ Percutaneous Rod Insertion – Features", Article 1576, Splneuniverse.com, website: http://www.spineuniverse.com/displayarticle.php/article1576.html , dated January 21, 2004				
		"SEXTANT™ Percutaneous Rod Insertion – Surgical Techniques", Article 1577, Spineuniverse.com, website: http://www.spineuniverse.com/displayarticle.php/article1577.html , dated January 21, 2004				
		SEXTANT™ Percutaneous Rod Insertion – Clinical Experience, Article 1578, Spineuniverse.com, website: http://www.spineuniverse.com/displayarticle.php/article1578.html , dated January 21, 2004				
V		EnduraTEC, New Full Spine Simulator Provides Unique Benefits for Spinal Device Engineering, "The Challenge: To Provide a Versatile Tool for Realistic Simulation of Spinal Kinematics"				

Examiner	/Yong Sim/	Date	04/04/0000
Signature	7 Tong Onn	Considered	01/21/2008

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant,

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.



	Form PTO 1449 (Rev. 2-32)	U.S. Department of Commerce	Atty. Docket No. IMMR-IMD0194	Serial No. 10/803,080
_	PE	Patent and Trademark Office	(034701-111)	
)	Zong Cipfor	mation Disclosure Statement by Applicant	Applicant: Richard L. 0	Cunningham et al.
U	2007 Cantor	(Use several sheets if necessary)	Filed: 03/18/2004	Group: 2635

U.S. Patent Documents

Init.	Document No.	Date	Name	Class	Subclass	Filing Date
/YS/	3,226,846	01/04/1966	Wood			
<u> </u>	4,439,162	03/27/1984	Blaine			
	4,750,487	06/14/1988	Zanetti			
	4,789,340	12/06/1988	Zikria			
	4,907,973	03/13/1990	Hon			,
	5,113,872	05/19/1992	Jahrmarkt et al.		·	
	5,149,270	09/22/1992	McKeown	·		
	5,217,003	06/08/1993	Wilk			
	5,290,276	03/01/1994	Sewell, Jr.			
	5,295,694	03/22/1994	Levin			
	5,403,191	04/04/1995	Tuason			
	5,417,210	05/23/1995	Funda et al.			
	5,480,307	01/02/1996	Lang et al.	``		
	5,518,406	05/21/1996	Waters			
	5,609,485	03/11/1997	Bergman et al.			
	5,623,582	04/22/1997	Rosenberg			
	5,629,594	05/13/1997	Jacobus et al.			
	5,667,517	09/16/1997	Hooven			
	5,691,898	11/25/1997	Rosenberg et al.			
	5,701,140	12/23/1997	Rosenberg et al.			
	5,704,791	01/06/1998	Gillio			
	5,720,742	02/24/1998	Zacharias			
	5,766,016	6/16/1998	Sinclair et al.			
	5,767,839	06/16/1998	Rosenberg			
	5,769,640	06/23/1998	Jacobus et al.			
	5,800,179	09/01/1998	Bailey			
	5,821,920	10/13/1998	Rosenberg et al.			
	5,828,197	10/27/1998	Martin et al.			
	5,873,732	02/23/1999	Hasson			
	5,967,790	10/19/1999	Strover et al.			
	6,036,495	03/14/2000	Marcus et al.			
	6,037,927	03/14/2000	Rosenberg			
	6,038,488	03/14/2000	Barnes et al.			
V	6,057,828	5/2/2000	Rosenberg et al.			
xaminer	/Yong Sim/			Date Cons	idered 01/21	/2008

Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.

Page 2 of 3

Form PTO 14 (Rev. 2-32)	Form PTO 1449 (Rev. 2-32) U.S. Department of Commerce Patent and Trademark Office			IMMR-I	ocket No. MD0194	Seria 10/80	l No. 03,080	
	Patent and Tradema	irk Office		(03470		L. Cunning	ham et al.	
In	formation Disclosure S	tatement by A	pplicant	F" 1 C	0/40/0004		0005	
	(Use several shee	ts if necessary)		Filed: U	3/18/2004	Grou	ıp: 2635	
		U	.S. Patent Documen	its				
Init.	Document No.	Date	Name		Class	Subclas	s Filing	Date
/YS/	6,106,301	08/22/2000	Merril					
i	6,113,395	09/05/2000	Hon					
	6,126,450	10/03/2000	Mukai et al	l				
	6,193,653	02/27/2001	Evans et a	l				
	6,375,471	04/23/2002	Wendlandt et	al.				
	6,377,011	04/23/2002	Ben-Ur					
	6,437,771	8/20/2002	Rosenberg et	t al.				
	6,965,370	11/15/2005	Gregorio et	al.				
	7,056,123	06/06/2006	Gregorio et					
. V	7,091,950	8/15/2006	Rosenberg et al.					
			C P 4 -4 D		-			
Init. Document No. Date		.S. Patent Documen Name	ts	Class	Subclas	s Filing	Date	
/YS/			·····	-4 -1				
1101	2001/0016804	08/23/2001	Church	a				<u> </u>
	2003/0006892	01/09/2003	Church		-			
	2003/0036714	02/20/2003	Kuth					
	2003/0076298	04/24/2003	Rosenberg					
	2003/0130674	07/10/2003	Kasahara et					
	2004/0009459	01/15/2004	Anderson et					
Y	2004/0106916	06/03/2004	Quaid et al		<u></u>			_
			Foreign Documents	; 	=			
					•	•		slation
Init.	Document No.	Date	Name		Class	Subclass	Yes	No
/YS/	DE 102 58 952	8/19/2004	DE				(abstract)	ļ
	SU1124372	11/15/1984	SU			\	<u> </u>	Х
	WO 91/06935	5/16/1991	wo				(abstract)	ļ
	WO 01/178039	10/18/2001	wo			ļ		Х
	WO 02/094080	11/28/2002	wo				<u> </u>	X
	WO 95/20787	8/3/1995	wo				<u> </u>	X
	WO 96/28800	9/19/1996	wo		ļ		<u> </u>	X
	WO 96/39944	12/19/1996	wo					X
								<u> </u>
<u> </u>					Data Car			
Examiner	/Yong Sim/				Date Con		01/21/2008	
	nitial if citation considere	•					_	tation

Page 3 of 3

Form PTO 144	0	Atty. Docket No.	Serial No.	
(Rev. 2-32)	U.S. Department of Commerce	IMMR-IMD0194	10/803,080	
(Rev. 2-32)	Patent and Trademark Office	(034701-111)	10/000,000	
Fatent and Trademark Office		Applicant: Richard L. Cunningham et al.		
l ·•			diningham et al.	
Information Disclosure Statement by Applicant		Fil. 1 02/49/2004	C 2635	
		Filed: 03/18/2004	Group: 2635	
(Use several sheets if necessary)				
Other Documents (Including Author, Title, Date, Pertinent Pages, etc.)				
100	Bostrom, Mikeal et al., "Design of An Interactive Lumbar Puncture Simulator With Tactile			
/YS/ Feedback," IEEE 0-7803-1363, 1993, pp. 280-286.				
	Chen, Elaine et al, "Force feedback for surgical simulation," Proceedings of the IEEE 86, No. 3,			
	March 1998, pp. 524-530.			
	Chen, Elaine Y. et al, "Exos Slip Display Research and Development," DSC-Vol. 55-1, Dynamic			
	Systems and Control, Vol., 1994, pp. 265-270.			
	Cover, Steven A, et al., "Interactively Deformable Models for Surgery Simulation," IEEE Computer			
	Graphics and Applications, Vol. 13, No. 6, pp. 68-75, 1993.			
	Dawson Steven L. et al., "The Imperative for Medical Simulation," Proceedings of the IEEE, Vol.			
	86. No. 3. March 1998, pp. 479-483.			
	Delingette, Herve, "Toward Realistic Soft-Tissue Modeling in Medical Simulation," Proceedings of			
	the IEEE, Vol. 86, No. 3, March 1998, pp. 512-523.			
	Jackon et al., "Force Feedback and Medical Simulation," Interactive Technology and the New			
:	Paradigm, Chapter 24, pp. 147-151.			
	Merril, Jonathan R. et al., "Virtual Reality for Trade Shows and Individual Physician Training,"			
	Medical Applications, 1994, pp 40-44.			
	Tutorial "Models For Simulating Instrument-Tissue Interactions" at MMVR 2001 in Newport-Beach,			
	California, January 24-27, 2001, 40 pages.			
	Satava, Richard M., "Current and Future Applications of Virtual Reality for Medicine, Proceedings			
	of the IEEE, Vol. 86, No. 3, March 1998, pp. 484-489.			
	Shahidi et al., "Clinical Applications of Three-Dimensional Rendering of Medical Data Sets,"			
	Proceedings of the IEEE, Vol. 86, No. 3, March 1998, pp. 555-568.			
	Stone, Robert J. et al., "Virtual Environment Training Systems for Laparoscopic Surgery," The			
	Journal of Medicine and Virtual Reality, 1995, pp. 42-51.			
	Wang, Yong-Jun, et al., "Force Feedback Assisted Nasoscope Virtual Surgery Simulator", 13			
•	Journal of System Simulation, Vol. 3, May 2001, pp. 404-407 (english abstract).			
-				
		20.27 2***		
				
			· · · · · · · · · · · · · · · · · · ·	
 				
	1	D. O	_ s	
Examiner /Yong Sim/ Date Considered 01/21/2008				
Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation				
10 1 C C C C C C C C C C C C C C C C C C				